

Amendments to the Specification:

Please amend the paragraph starting at page 1, line 24 and ending at page 2, line 22 to read, as follows.

--Therefore, there has been suggested what we call a cleanerless system that collects residual toner on an image carrier into a developing unit for reuse. This system collects the residual toner on the image carrier into the developing unit in a process of visualizing an electrostatic image on the image carrier by means of the developing unit to reuse the collected toner for forming another image. In the process of visualizing the electrostatic image on the image carrier by means of the developing unit, the developing unit is provided with a developing bias including an alternation of a voltage generating an electric field in a direction where the toner moves from the developing unit to the image carrier (hereinafter, referred to as development accelerating voltage) and a voltage generating an electric field in a direction where the toner returns from the image carrier to the developing unit (hereinafter, referred to as a collecting voltage). The residual toner on the image carrier is collected to the developing unit by means of a potential difference (hereinafter, referred to as a V-back potential difference) between the collecting voltage of the developing bias applied to a developing sleeve of the developing unit, which is a developer carrier, and a potential of an image carrier surface charged by a charger.--

Please amend the paragraphs starting at page 7, line 2 and ending at page 8, line 20 to read, as follows.

--The regulating unit 7 regulates a charging bias DC component voltage applied to the charging roller according to the calculated image ratio. A concrete Concrete

description of the regulation is shown in Fig. 3. In Fig. 3, the abscissa axis represents an image ratio and the ordinate axis represents a DC component voltage of the voltage applied to the charging roller, where values in parentheses on the ordinate axis represent V-back potential differences. In this embodiment, the developing bias DC component is assumed - 350V. As shown in Fig. 3, the DC voltage of the bias applied to the charging member 2 is adjusted, so that the V-back potential difference increases along with an increase of the image ratio. More specifically, the DC component of the bias applied to the charging member 2 is adjusted in such a way as to increase toward the charged polarity along with an increase of the image ratio. For example, when reading an original having an image ratio of 15% by means of an image reader and copying the original, the regulating unit 7 regulates an output of a power supply S1 to -500V so as to cause the V-back potential difference to be 150V.

An increase of the image ratio increases an amount of toner necessary for forming a toner image on the image carrier and it inevitably leads to an increase of transfer residual toner. Immediately after the transfer, positive and negative polarities are mixed in the transfer residual toner. The charging member 2, however, makes uniform ~~uniforms~~ the polarities to a normal polarity (negative polarity in this embodiment). The transfer residual toner made uniform ~~uniformed~~ to the negative polarity moves to the developing sleeve due to a potential difference between a potential of the charged image carrier surface and a potential of the developing sleeve so as to be collected. The movement of the transfer residual toner from the image carrier to the developing device is a movement of particles having electric charges and therefore it can be seen as a current flow. In this connection, even if a large amount of transfer residual toner remains due to an increase of the image

ratio, toner collection is enabled by increasing the potential difference between the image carrier and the developing sleeve (V-back potential difference) so that much current flows.--

Please amend the paragraph starting at page 11, line 19 and ending at page 12, line 1 to read, as follows.

--This causes the surface of the rotating photosensitive drum 1 to be charged equally (uniformly) at a given polarity and potential. The charging bias applying power supply S1 detects a discharge current amount between the charging roller 2 and the photosensitive drum 1 and is variably controlled by a discharge current amount controlling unit (not shown) for controlling the discharge current on the basis of the detected amount so as to carry out charging with a [[the]] minimum current amount.--

Please amend the paragraph starting at page 14, line 8 and ending at page 15, line 8 to read, as follows.

--The image forming apparatus in Fig. 1 has the exposing apparatus 3 as means for writing information for forming an electrostatic image on the surface of the charged photosensitive drum 1. The exposing apparatus 3 is a laser beam scanner using a semiconductor laser in this embodiment. The exposing apparatus 3 outputs a laser beam L modulated so as to correspond to an image signal sent from a host processor such as an image reader (not shown) to the image forming apparatus. The laser beam L carries out a scanning exposure (image exposure) in an exposure position b on the surface of the charged and rotating photosensitive drum 1. The scanning exposure lowers the potential of

the irradiated portion with the laser beam L on the charged area of the surface of the photosensitive drum 1, thereby forming the electrostatic image corresponding to the image information. The output of the exposing apparatus 3 is regulated by the regulating unit 7 according to the potential of the charging bias applied to the charging member 2. The regulation helps the potential of the image area, which is an exposed area, to remain constantly at approx. -100V independently of the charging bias voltage. In this embodiment, as an example, the output for a case where -530V is applied to the charging member 2 is set to be approx. 10% larger than that for a case where -480V is applied to the charging member.--

Please amend the paragraph starting at page 17, line 12 and ending at page 17, line 18 to read, as follows.

--A part of the two-component developer 4e in the developing container 4a is absorbed (or adhered ~~sticked~~) and maintained as a magnetic brush layer on the outer peripheral surface of the developing sleeve 4b by means of a magnetic force of the inner magnetic roller 4c and it is conveyed rotationally with the rotation of the developing sleeve 4b.--